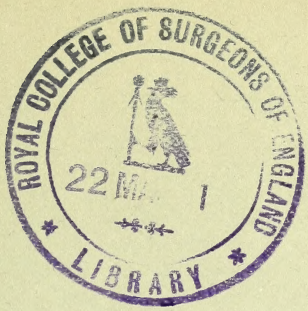

8.

AN ANALYSIS OF A FOURTH SERIES OF EIGHTY-NINE CASES OF INTUSSUSCEPTION.

BY

W. McADAM ECCLES, M.S., F.R.C.S. (ENG.),

AND

F. F. LAIDLAW, M.R.C.S. (ENG.), L.R.C.P.

[Reprinted from St. Bartholomew's Hospital Reports, Vol. XLVII.]

AN ANALYSIS OF A FOURTH SERIES OF EIGHTY-NINE CASES OF INTUSSUSCEPTION.

BY

W. McADAM ECCLES, M.S., F.R.C.S. (ENG.), AND
F. F. LAIDLAW, M.R.C.S. (ENG.), L.R.C.P.

We propose to give a detailed analysis of the cases, under the same headings as in the three former analyses (vols. xxviii., xxxiii., and xxxvii.). But from a clinical point of view the 89 cases of this series fall into special groups which we shall review later in further detail. We have to thank those members of the staff under whose care the cases were for their permission to use the notes.

1. *Sex of the Patients.*—Of the 89 cases, 60 occurred in males and 29 in females.

This again bears out the fact that intussusception is more frequent in the male sex, for in this series there are 2 males to each female patient.

Of the total for the four series, 185 cases, it will be seen that 118 were males and 67 females, 64.3 and 35.7 per cent. respectively.

2. *Age of the Patients.*—No less than 65 of the 89 cases were of the age of twelve months or under. One was fourteen months of age. Thirteen were between two and five years of age. One was nine years. Five were between fourteen and twenty, whilst four were over twenty-five; the oldest case was a male aged thirty-nine, and the youngest a female infant of ten days.

Taking the 96 cases previously reported, it will be seen that 128 cases of the total of 185 were infants of one year and under, a percentage of 69.1.

Those between one year and five number 37, or 20 per cent. Of patients over five years there are in all 20, and of these 7 were adults.

3. *Causes of the Affection.*—Again in most cases the notes do not give any indication of definite causes of the lesion.

In one patient (No. 39) a gangrenous polypus was found in the cæcum after this had been removed for an irreducible ileo-cæcal intussusception, and in a second case (No. 79) an enteric intussusception was found to be due to the presence of a myxo-sarcoma.

With regard to the view that errors of diet may play an important part in the etiology of the affection, an examination of a curve showing the age incidence is highly suggestive, with its very marked maximum occurring in the months from four to eight of the first year of life.

In the case of some of these infants a vague history of indigestion or of some change in diet has been elicited (*e.g.* Nos. 2, 5, 30, 31, 76). On the other hand, a number of cases occurred in infants who, according to the clinical notes, were entirely breast-fed.

3A. *Variety of the Intussusception.*—Of the 89 cases in the present series, 9 are enteric, or 10 per cent.; 5 are colic, or 5.6 per cent.; 40 are ileo-cæcal, or 45 per cent.; 25 were ileo-colic, or 28 per cent. In 10 the variety was unknown, or is unrecorded. One which is included amongst the ileo-cæcal was in reality appendicular.

In relation to the classification of the varieties of the lesion, it is interesting to note that the late Mr. Barnard suggested the following:—

1. Enteric.
2. Entero-colic.
   - ileo-cæcal
   - ileo-colic.
   - cæcal.
   - iliaco-ileo-colic.
   - appendicular.
3. Colic.

Percentage rates of 110 cases at the London Hospital are given by him as:—

Enteric	9 per cent., 10 cases.
Entero-colic . . .	84 per cent., 92 cases.
Colic	7 per cent., 8 cases.

Barnard, in speaking of the ileo-colic section, remarks that "growth takes place entirely at the expense of the entering layer," and he held that an intussusception of this character originated as a prolapse of the ileum through the ileo-cæcal valve, which stands fast whilst more and more ileum is prolapsed through its orifice into the cæcum.

Fitzwilliams, on the other hand, takes the view that the apex

of an intussusception, *i.e.* the junction of the entering and returning layers, must, for anatomical and physiological reasons, remain constant, whilst the intussusception as a whole grows at the expense of the ensheathing layer, which alone retains the power of peristaltic movements, the intussusception becoming congested and adematous.

It follows, on this theory, that all ileo-colic intussusceptions must start as enteric forms, more or less near the ileo-cæcal valve, and that they progress to the ileo-colic type by a normal growth at the expense of the outer layer, as is admittedly the case in all other types.

Several of the cases in our series lend support to this view, and are stated to have appeared at the time of operation to have started as enteric and to have passed through the ileo-cæcal valve (Nos. 1, 13, 18, 43, and 74).

Fitwilliams, therefore, includes ileo-colic intussusceptions with the enteric forms.

He gives the following percentages for all ages in 1000 cases:—

Ileo-cæcal	60.8.
Enteric	25.6.
Colic	7.3.

The starting-point in enteric intussusception is given in the following cases; this includes ileo-colic intussusceptions where the starting-point of the invagination is noted clinically:—

Case 1. Ileum. 13. Ileum.
„ 16. Lower end of ileum 3 inches from ileo-cæcal valve.
„ 18. Ileum. 21. Ileum.
„ 58. Ileum.
„ 82. 3 inches from pylorus.

Multiple Intussusception.—The single case of a multiple intussusception (38) appears to belong to group 2 of Fitzwilliams, *i.e.* the primary intussusception was at the valve, the secondary at a lower level in the colon.

Possibly a second case (4) is of the same nature.

Fitzwilliams in 1908 recorded 15 cases, of which only 2 belonged to his second group.

Appendicular (24). One case of complete inversion of appendix recorded.

The appendicular cases are always chronic. No satisfactory explanation has been offered to account for their occurrence.

4. *Duration of Symptoms before Admission, and Mortality of the Eighty-nine Cases.*—Fifty-six recovered and 33 died.

Duration of Symptoms in Cases where Reduction was possible.—Over forty-eight hours there were 12 cases, with 4 deaths. The two longest durations of symptoms were five and seven days, and both cases recovered (41 and 77).

Two cases had a duration of about four days and died after operation (35, 73); whilst a third, with perhaps as long duration, recovered (19).

The remainder of the 59 cases reduced by manipulation after laparotomy had a history of less than forty-eight hours. The shortest history is of two and a half hours (59). The most rapidly fatal case had a history of about eight and a half hours.

Duration of Symptoms in 9 Cases where Resection was found necessary averaged three days; the shortest history is of thirty-five hours.

Two cases under two years were not operated on.

It is worth remarking that in the year 1907, 16 cases were admitted, 1 of five years of age, the rest all of one year or under. All were treated by laparotomy and reduction by manipulation, and only 1, a male aged eight months, died.

No fewer than 70 of the total of 89 cases were two years old or under.

All but 2 of these 70 cases underwent operation. In 9 of them resection was unavoidable, and these all died (2, 14, 17, 26, 34, 36, 70, 72).

In 59 cases reduction by manipulation after laparatomy was performed, with thirteen deaths. One death was due to broncho-pneumonia (43).

5. *Symptoms and Signs.*—In the 70 cases in which the *onset* is noted it was sudden in 48. *Pain* is noted as a prominent symptom in 50.

Vomiting is recorded for 53 cases, in 2 cases is stated definitely not to have occurred, and not noted in 15.

Blood or *Blood-stained Mucus* was passed in 61 cases. In 3 this sign was definitely absent, whilst in 6 cases no note was made.

On abdominal palpation a *tumour* was felt in 55 cases, was not felt though searched for in 6 cases, and in the remaining 7 cases no record was made.

A *tumour* was palpated per rectum in 13 cases, in 17 cases nothing was felt per rectum, whilst in the remaining 39 cases no remark on this sign is made.

Remarks.

Examination of available evidence makes it clear that in the early years of life the occurrence of an intussusception is to be regarded as one of the commoner surgical lesions of the abdomen.

After reaching puberty or later the development of this condition is a rare accident, usually with a history, and symptoms different from those associated with the typical acute attack as found in infants.

Consequently statistics drawn from a series of cases of all ages are of no value.

In the present series cases No. 23, 33, 39, 44, 52, 78, 79 had reached the age of puberty. Excepting No. 23, 52, all of them were chronic cases, whilst one, namely 78, gave no evidence at operation of the presence of an intussusception.

The total number of cases admitted to hospital and diagnosed as cases of intussusception during the ten years period, 1901–1911, is 89.

Of these in 3 cases (Nos. 1, 16, 46) no operation was performed in each case because the patient was moribund.

One patient was admitted on two separate occasions with an ileo-cæcal intussusception at an interval of three months, and recovered satisfactorily after both operations (3, 4).

In one case at operation nothing abnormal was found; the condition was diagnosed as one of chronic intussusception. The patient was a male aged thirty (78).

In another case (21), a male infant of six months with acute symptoms, the involution appeared to have reduced itself, whilst in a male child of five, in which the classic symptoms were noted, eighteen inches of small intestine were found congested and distended. A temporary enterostomy brought about a successful cure (40).

Two cases, both very chronic, were admitted in the first instance to medical wards, and subsequently transferred to the charge of a surgeon.

The youngest infant in the present series was only ten days. One of us has recorded in a previous series a case of an infant of three days, the earliest case of which we have been able to find any record.

Of the 29 female patients in the present list the oldest is six years of age.

[Tables of Analysis.

AN ANALYSIS OF A FOURTH SERIES OF EIGHTY-NINE CASES OF INTUSSUSCEPTION.

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Symptoms.	Treatment.	Result.	Remarks.	Reference.
1	1901 Jan.	Mr. Willett	♂	7 m'ths	? 24 hours	Cried and seemed in pain day before admission, passed natural motion. *On admission.*—Extremely ill. Pulse uncountable. Abdomen distended, did not move, no swelling felt.	...	D	No operation owing to state of child. No P.M.	I. 192 ♂
2	1901 Sept.	Mr. D'Arcy Power	♂	3 m'ths	? 5 days	Diarrhœa on 5th day before admission, since then absolute constipation with much vomiting; a little blood per rectum. *On admission.* — Collapsed. Fæculent vomiting. Abdomen soft (not distended), moves freely, visible peristalsis.	Laparotomy resection. Anastomosis with Murphy's button.	D	Child artificially fed, history of "dyspepsia." Ileo-ileo-colic intussusception found. Gangrenous polypus attached to ileum formed apex of intussusception. Died one hour after operation.	I. 2368 ♂ Museum specimen 2191D P.M.

3	1901 Jan.	Mr. Walsham	♂	4 m'ths	48 hours c.	Cramp in stomach, vomiting and passing of blood per rectum on day of onset. *On admission.*—Resistance felt beneath r. rectus. P.R. no swelling felt, but withdrawal of finger followed by rush of blood. Under anæsthetic. — Definite lump felt, and "signe de Dance" elicited.	Laparotomy reduction.	R	"Ileo-cæcal intussusception found and reduced. Tumour was tucked up under right ribs." Breast-fed.	V. 145 ♂
4	1901 April	Mr. Walsham	♂	7 m'ths	24 hours c.	(Same patient as No 3.) Pain in abdomen, vomited, passed blood and mucus per rectum. *On admission.*—Child apathetic, apparently not in much pain. Abdomen tense. Tumour felt under r. ribs.	Laparotomy reduction.	R	Peritoneal adhesions. Intussusception of ascending colon; in addition there was much congestion about ileo-cæcal junction, as though it had shared in the intussusception.	V. 1149 ♂
5	1901 May	Mr. Power	♀	1 year	24 hours c.	Sudden attack of pain; vomited several times, passed blood and mucus per rectum. Lump felt under r. costal margin on nipple line.	Laparotomy reduction.	R	"Always had weak digestion." Colic intussusception found, about hepatic flexure. Still breast-fed, with occasional biscuits, crusts, &c.	I. 995 ♀
6	1901 July	Mr. Harrison Cripps	♀	6 m'ths	12 hours c.	Onset sudden. "Pain, vomited, passed blood." *On admission.*—Pale, collapsed, pulse feeble. Abdomen soft, distended, not tender. Swelling in l. hypochondrium could be felt per rectum.	Laparotomy reduction.	R	Ileo-cæcal intussusception.	V. 1611 ♀

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Symptoms.	Treatment.	Result.	Remarks.	Reference.
7	1902 Oct.	Mr. Langton	♂	8 m'ths	36 hours	Vomiting, thighs flexed on abdomen, blood passed per rectum, lump felt extending across abdomen from r. iliac fossa.	Laparotomy reduction.	D	Extensive entero-colic, type not noted. Died, with signs of internal hæmorrhage. No P.M.	1902 I. 2743 ♂
8	1902 Jan.	Mr. Butlin	♂	2½ years	? 24 hours	Well until Jan. 10th, then fretful. Jan. 11th, vomited. B.O. had part abdominal pain. Motion dark-coloured, mixed with mucus. *On admission.*—Pale, cold. T. 97. Abdomen distended, fullness over l. side, hollowness in r. flank. Definite swelling over course of transverse colon and descending colon. Not felt P.R.	Laparotomy reduction.	R	Ileo-cæcal intussusception found.	1902 III. 123 ♂
9	1902 May	Mr. D'Arcy Power	♂	6 m'ths	48 hours c.	Sudden onset, pain, vomiting, and blood-stained mucus per rectum with absolute constipation. *On admission.*—Collapsed, abdomen distended not tender, resistance to r. of the umbilicus, nothing felt per rectum.	Laparotomy reduction.	D	Ileo-cæcal intussusception found and reduced easily. No. P.M. allowed.	1902 I. V. 355 ♂

10	1902 May	Mr. Harrison Cripps	♂	6 m'ths	24 hours c.	Sudden onset, screaming, vomiting, blood and mucus per rectum. *On admission.*—Collapsed, pulse uncountable, swelling on left side of abdomen, "altering in hardness." Nothing felt P.R.	Laparotomy reduction.	D	Reduced with difficulty. "Ileum invaginated into itself as far as the rectum and ileo-cæcal valve into colon for about 8 inches." P.M. — Local peritonitis. Cæcum and appendix in places look gangrenous.	1902 V. 1205 ♂ (P.M. 89)
11	1902 June	Mr. Harrison Cripps	♂	4 years	7 hours?	5 A.M. Diarrhœa and vomiting blood per rectum. *On admission.* — 12 noon. Very collapsed. Tumour on right side of abdomen.	Laparotomy reduction.	D	Enteric intussusception found. Operation lasted 7 minutes. Child rickety and delicate. P.M. — No peritonitis, no adhesion, small post-mortem intussusception ileum.	1902 V. 1570 ♂ (P.M. 112)
12	1902 June	Mr. Waring	♂	9 m'ths	26 hours	Sudden onset, with vomiting. Motions "shiny," but no blood noticed.	Laparotomy reduction.	R	Theo-cæcal intussusception. Appendix very long, healthy, not removed.	1902 V. 1770 ♂
13	1902 July	Mr. Harrison Cripps	♂	4 years	...	Began to vomit at 6 A.M. Passed blood per rectum at 8 A.M. *On admission.* — Collapsed, no tumour felt, rectum full of blood and mucus.	Laparotomy reduction.	R	Similar attack when two years old lasting 3 days. Has eaten nothing to disagree with him so far as mother knows. Ileum into ileum and through ileo-cæcal valve.	1902 V. 1940 ♂
14	1902 Oct.	Mr. Langton	♀	8 m'ths	48 hours c.	Passed nothing but blood and mucus for the last two days before admission, vomited. *On admission.*—Hard lump in r. iliac fossa, felt also P.R.	Laparotomy resection. Anastomosis with Murphy's button.	D	Ileo-cæcal intussusception.	1902 I. 2219 ♀ P.M.

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Symptoms.	Treatment.	Result.	Remarks.	Reference.
15	1902 Nov.	Mr. Langton	♀	1 year	3 days?	Taken ill with vomiting and constipation three days before admission. On day of admission passed blood and mucus per rectum.	Laparotomy reduction.	R	Ileo-cæcal intussusception.	1902 I. 2493 ♀
16	1902 Feb.	Mr. Butlin	♀	6 years	12 days c.	Well until 12 days before admission, then vomited and complained of pain chiefly on r. side of abdomen, vomited and was constipated until day of admission. Last 3 days passed blood and mucus. *On admission.*—Moribund.	...	D	Died 15 minutes after admission. No clinical examination. P.M.—General peritonitis. Intussusception confined to lower end of ileum, and about 3 inches from ileo-cæcal valve. Length about 4 inches. Intussusception and intussusceptions firmly united at lower end.	1902 III. 361 ♀ (P.M. 33)
17	1902	Mr. Walsham	♀	5 m'ths	1 week c.	Constipation and vomiting for a week. On admission vomit fæculent, passed blood per rectum. Abdomen distended. T. 97.	Laparotomy reduction. "Artificial anus made."	D	Ileo-cæcal intussusception found, gangrenous.	1902 IV. 560 ♀ (P.M. 52)

18	1902 Oct.	Mr. Harrison Cripps	♀	7 m'ths	36 hours c.	Sudden onset, screaming. Some hours later vomited, and 5 hours after onset passed blood per rectum. *On admission.* — Swelling felt in r. iliac fossa.	Laparotomy reduction.	R	Large intussusception involving lower ileum, all colon and beginning of sigmoid. Reduced with difficulty, tears in peritoneum sown up. Apex of intussusception had passed through ileo-cæcal valve.	1902 V. 2177 ♀
19	1903 Feb.	Mr. Bowlby	♂	4 m'ths	4 days?	Well till four days before admission, then passed blood per rectum. Better the next two days, then on day of admission appeared to be in pain, and again passed blood and mucus. *On admission.* — Abdomen tender, resistant, under anæsthetic tumour felt in epigastrium and down to left iliac fossa.	Laparatomy reduction.	R	Ileo-colic intussusception. Breast-fed. Reduced with slight difficulty.	1903 II. 489 ♂
20	1903 Mar.	Mr. Marsh	♂	5 m'ths	48 hours?	Well on Mar. 6th. Fretful and vomited Mar. 7th. Vomited and passed blood per rectum, Mar. 8th. *On admission.*—Mar. 9th, abdomen resistant, tumour over descending colon. P.R. nothing felt, but blood discharged.	Laparatomy reduction.	D	Ileo-cæcal intussusception found and reduced with difficulty, some adhesions and tears in peritoneum. Died suddenly 6 hours after operation.	1903 II. 691 ♂

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Symptoms.	Treatment.	Result.	Remarks.	Reference.
21	1903 Feb.	Mr. Walsham	♂	6 m'ths	48 hours c.	Feb. 20th. Sudden great pain, vomiting. Bowels opened. Feb. 21st. Pain, vomiting, passed blood per rectum. Feb. 22nd. Same condition. *On admission.*—Feb. 23rd. Collapsed, in pain, no tumour felt.	Laparatomy.	R	Intussusception of ileum (enteric) had reduced itself, but its existence was clearly shown by congestion of area.	1903 III. 536
22	1903 Aug.	Mr. Walsham	♂	4 m'ths	12 hours	Sudden onset, severe pain, vomited, passed blood per rectum. *On admission.* — Very collapsed, swelling felt in left flank, could also be palpated per rectum.	Laparatomy reduced.	D	Ileo-cæcal intussusception found, appendix much inflamed. Died 3 hours after operation.	1903 III. 2256 ♂ (P.M. 136)
23	1903 Dec.	Mr. Lockwood	♂	36 years	4 days	Pain in left iliac fossa after meal. Lump felt, which increased in size. *On admission.* — Bowels open regularly, abdomen distended, bulging in r. flank, movement good; tumour felt in l. iliac fossa, hard, movable, dull. Nil. P.R. En. sap. gave good result. Next day. Great pain. Day after. Distension	Laparatomy resection. End to end anastomosis.	D	Two previous attacks, not so severe as final. Last attack one month before admission; lasted 2 days. No P.M. No cause suggested. Colic intussusception, ascending and transverse colon.	1903 III. 3427 ♂ Museum specimen 2186A

						marked, swelling in position of descending colon. Flatus passed.				
24	1903 May	Mr. Waring	♂	9 years	?	Pain and constipation for a month before admission (result of a blow on abdomen). For a week before admission vomited occasionally and had a daily dose of castor oil. Was in Matthew Ward from April 16 to April 29, and discharged improved. *On admission* to surgical ward on May 6th appeared very ill. Glycerin suppository returned with blood. Sausage-shaped swelling above umbilicus.	Laparotomy reduction, with resection of part of cæcum and appendix.	R	At operation ileo-cæcal intussusception found and easily reduced for the most part. Appendix could not be reduced, hence removed with part of wall of cæcum. The appendix was completely invaginated.	1903 IV. 1282 ♂ Museum specimen 2180A Medical notes
25	1903 July	Mr. Waring	♂	3 m'ths	24 hours	Day before admission passed blood-stained motion, vomited once. *On admission.* — Frequent vomiting and continuously passing small quantities of blood and mucus per rectum, much straining. Abdomen moves freely, swelling in r. lumbar region. P.R. swelling can be felt.	Laparotomy reduction.	D	Ileo-cæcal intussusception found and reduced with difficulty. Died four days later. P.M.—Cæcum and appendix collapsed and inflamed, many recent adhesions causing sharp kinking of the gut.	1903 IV. 2022 ♂ P.M.

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Symptoms.	Treatment.	Result.	Remarks.	Reference.
26	1903 Apr.	Mr. Langton	♀	4 m'ths	3 days	Sudden onset, pain, blood per rectum, vomiting of all food. Later continuous passing of blood and mucus. Constipation absolute. *On admission.* — Vomiting of "gushing" type, tumour in abdomen in long axis of body. Not felt P.R.	Laparotomy reduction. Enterectomy.	D	Ileo-cæcal intussusception found. Omentum (? mesentery) becoming gangrenous. Enterectomy. Died 3 hours later.	1903 I. 995 ♀ P.M.
27	1903 Mar.	Mr. Marsh	♀	11 weeks	? 24 hours	Mar. 1. Child sick and out of sorts. Mar. 2. Sickness worse. Mar. 3–4 { Pain same, distension motions natural. Mar. 5. Much more frequent vomiting, blood in motions, later constipation with passing of blood and mucus. *On admission.* — Abdomen distended in pain, swelling in l. lumbar region felt under chloroform. P.R. Tip of intussusception could be felt high up.	Laparotomy reduction.	R	Ileo-cæcal intussusception found.	1903 II. 580 ♀

28	1903	Mr. D'Arcy Power	♀	4 m'ths	24 hours c.	Sudden onset. Became pale and ill, cried. Abdomen distended, passed blood per rectum. No vomiting. *On admission.*— Apathetic, cries when examined. Abdomen soft, tumour in l. iliac region. P.R. Sphincter ani relaxed, blood-stained mucus escapes. Tumour felt high up.	Laparotomy reduction.	R	Breast-fed. Ileo-colic.	1903 II. 2269 ♀
29	1903 Dec.	Mr. Bowlby	♀	10 m'ths	18 hours	Sudden onset, pain, and screaming. Vomited once through the day, passed blood and mucus per rectum. *On admission.* — In great pain. Abdomen tender. Swelling felt readily under anæsthetic.	Laparotomy reduction.	R	Ileo-colic intussusception.	1903 II. 2830 ♀
30	1903 Jan.	Mr. Walsham	♀	6 m'ths	40 hours c.	Sudden onset, pain, screaming, and vomiting. Constipation. Passed blood about 36 hours after onset. *On admission.* — Abdomen distended and tense tumour felt on l. side and also P.R.	Laparotomy reduction.	R	Fed at breast and with biscuits. Prolonged operation. Ileo-cæcal. A brother now 11 years old and in good health operated on for intussusception when 6 months old.	1903 III. 134 ♀

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Symptoms.	Treatment.	Result.	Remarks.	Reference.
31	1903 Feb.	Mr. Walsham	♀	14 m'ths	? 24 hours	Sudden pain and screaming on morning of day before admission. Legs drawn up, vomited 3 or 4 times. B.O. naturally. On morning of day of admission seemed better, and was able to move about. In the afternoon more pain. Passed blood per rectum. *On admission.*—Transverse swelling in abdomen above umbilicus.	Laparotomy reduction.	R	Ileo-cæcal intussusception. "Fed on milk, bread, and butter, cake and biscuits. Fried fish for dinner, Feb. 3rd."	III. 285 ♀
32	1904 Oct.	Mr. Harrison Cripps	♂	2 years		Sudden onset, with pain, vomiting, and passing of blood and slime per rectum. *On admission.* — Abdomen rigid, moves poorly, resonant, swelling below and to right of umbilicus. Nothing felt P.R.	Laparotomy reduction. Appendicectomy.	R	Cæcum of fœtal type. Cæcum and ascending colon red and injected. Tumour disappeared as they were pulled out of incision.	1904 II. 3045 ♂

33	1904 Mar.	Mr. Bruce Clarke	♂	16 years	2 weeks?	Frequent attacks of pain in abdomen, with sickness and constipation since childhood. For last 3 years almost complete obstruction during attack. Feb. 19. Pain, vomiting, constipation. Flatus passed until Feb. 28. *On admission.*—Mar. 1. Pale, restless, in great pain. Distension, visible peristalsis, belly moves well. P.R. Soft mass felt, no fæces.	Laparotomy resection. End to end anastomosis.	D	Appendicectomy 1902 (Mr. Butlin). No attacks of pain after that until summer of 1903. Since then at frequent intervals, each attack lasting 3 or 4 days. At operation, Mar. 1, 1904, ileo-colon intussusception found. At least two feet of ileum with cæcum resected. Slight leakage. General peritonitis. Death on 6th day after operation.	1904 III. 634 ♂ (P.M. 55.)
34	1904 Aug.	Mr. Bailey	♂	6 m'ths	5 days	Constipation, with blood and mucus passed per rectum for 5 days. *No* vomiting. Child drowsy. P. 150. No tumour felt. Abdomen distended.	Laparotomy resection. Lateral anastomosis.	D	Resection of part of ileum and cæcum. "Ileo-colic intussusception." Died of shock and collapse five hours after operation.	1904 IV. 2432 ♂ (P.M. 161)
35	1904 April	Mr. Harmer	♂	7 m'ths	4 days	Ill for 4 days before admission, seemed to be in pain, "passed blood in his motions," and strained. *On admission.*—Evidently in great pain, abdomen distended, a little tender; resistance in r. iliac fossa.	Laparotomy reduction.	D	Ileo-cæcal intussusception found. P.M. Peyer's patches stand out clear and swollen. Intestine about cæcum dark and discoloured, with small punctiform hæmorrhages.	1904 V. 1278 ♂ (P.M. 88)

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Symptoms.	Treatment.	Result.	Remarks.	Reference.
36	1904 Aug.	Mr. Harmer	♂	6 m'ths	3 days ?	Vomited after taking the breast. B.O. blood with fæces on 3rd day before admission, since then constipation and abdominal pain. Mucus and blood passed per rectum. *On admission.*—Pale, knees drawn up, paroxyms of pain. Examination causes screaming. Swelling felt to the left and below umbilicus. Felt per rectum 2½ inches from anus.	Laparotomy resection. Anastomosis with decalcified bone button. Appendicectomy.	D	Ileo-colic intussusception found. (No post-mortem examination.) The cæcum ruptured during attempt to reduce by manipulation.	1904 V. 2493 ♂
37	1904 Feb.	Mr. Harmer	♀	4 m'ths	12 hours c.	Sudden onset with vomiting. Six hours later passed blood and mucus per rectum. *On admission.*—No vomiting, definite tumour in r. iliac fossa. P.R. Nil, abnormal felt. Blood on examining finger.	Laparotomy reduction.	D	Ileo-cæcal intussusception found, reduced with difficulty. Died 24 hours c. after onset. P.M.—General peritonitis, most marked about site of intussusception.	1904 I. 337 ♀ (P.M. 34)
38	1904 Nov.	Mr. D'Arcy Power	♀	5 m'ths	44 hours	Sudden onset, vomiting, crying and straining. Refused the breast. About 20 hours after on-	Laparotomy reduction.	R	Colo-colic intussusception, *and also* ileo-cæcal intussusception found. Operation lasted 16 minutes.	1904 I. 2529 ♀

						set passed blood and mucus per rectum. *On admission.*—Pale and apathetic. Indefinite swelling on l. side of abdomen below umbilicus. R. iliac fossa "feels more empty than normal." Abdomen soft, moves well. P.R. Tumour 1½ inch from anus.				
39	1905 Jan.	Mr. Bruce Clarke	♂	18 years	? 3 weeks	Attack of abdominal pain Dec. 26th, '04, which passed off. Returned Jan. 13th with diarrhœa, which persisted until admission on Jan. 17th. Vomiting Jan. 16th and 17th. On admission swelling in r. iliac fossa. 3 days later patient was better, swelling had disappeared. A fortnight later blood passed per rectum, and swelling returned large and tender.	Laparotomy resection. End to end anastomosis.	R	(Sept. 1904. Appendicectomy.) Ileo-cæcal intussusception. The cæcum contained a gangrenous polypus. Operation Feb. 7th. Diagnosis doubtful until laparotomy. Hydronephrosis suspected, as left kidney was secreting 6 times as much urine as right kidney.	1905 II. 165 ♂
40	1905 April	Mr. Bruce Clarke	♂	5 years	8 hours c.	Sudden onset, severe abdominal pain. Passed blood with motion. Sausage-shaped swelling felt on palpation, frequently shifting its position. Patient vomited.	Laparotomy enterotomy Appendicectomy.	R	At operation no intussusception found, but about 18 inches of small intestine reddened, congested, and distended. This was incised and its contents evacuated.	1905 II. 1132 ♂

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Symptoms.	Treatment.	Result.	Remarks.	Reference.
41	1905 Aug.	Mr. McAdam Eccles	♂	10 m'ths	? 5 days	Diarrhœa for fortnight before admission. Passed blood five days before admission, and 2 days later vomited, "much worse on day of admission." Swelling in l. iliac fossa. Diarrhœa stopped when blood was passed.	Laparotomy reduction.	R	"Cæcum invaginated into itself, drawing ileum and ileo-cæcal valve with it." Breast-fed.	1905 II. 2268 ♂
42	1905 July	Mr. Harmer	♂	4 m'ths	5 hours	Sudden onset, screamed 2 A.M. Vomited and passed blood 6 A.M. T. 101.4. R. 32. P. 160. Pale, ill, apathetic, lies on side.	Laparotomy reduction.	R	Ileo-cæcal intussusception. Child breast-fed.	1905 IV. 1909 ♂
43	1905 Feb.	Mr. D'Arcy Power	♂	8 m'ths	24 hours c.	Sudden onset, vomiting, knees drawn up. Three hours later passed blood per rectum. Vomiting continued. On admission apathetic abdomen moves fairly well. Absense of resistance in r. iliac fossa. No tumour felt. Blood on finger per rectum. (Tumour was felt by medical attendant before admission, in region of transverse colon.)	Laparotomy reduction.	D	Breast-fed. "Intussusception had started as entero-enteric and gone on to ileo-colic." Improved much after operation, but died 36 hours later of broncho-pneumonia. Small post-mortem, intussusception found.	1905 V. 522 ♂ (P.M. 24)

44	1905 July	Mr. Rawling	♂	17 years	8 weeks	Onset. Sudden attack of pain whilst walking, in left lower abdomen. Pain came and went for about 5 weeks. Occasional distension of abdomen which disappeared with "gurgling" sounds and relief of pain. Vomiting and nausea from day after onset, worse as the pain was worse. Blood and mucus passed per rectum 3 and 4 times a day. On one occasion a "hard mass" prolapsed at anus and was replaced by doctor. *On admission.* — Examined under an anæsthetic, tumour felt in r. hypochondrium, small papilloma seen with sigmoidscope about 5 inches from anus. Three days after admission bowel prolapsed per anum and was replaced.	Laparotomy. Enterostomy one foot above intussusception. Opened a week later.	D	Laparotomy a week after admission. R. side explored. Cæcum not found, but lower end of it felt higher up than normal and lower end of free ileum traced to it. After the operation patient passed motions naturally and through the enterostomy opening. General condition did not improve, and he became very thin. Died about a month after operation. P.M. — Extremely emaciated. Intussusception of small intestine into large. The covering layer had given way, gangrenous. 8½ feet of small intestine between duodenum and commencement of intussusception which reached to within 4 inches of anus.	1905 V. 2041 ♂ (P.M. 136)
45	1905 Dec.	Mr. D'Arcy Power	♂	2 years	24 hours c.	Diarrhœa 24 hours. Then vomited, with pain and tenesmus, passed frequent motions with blood and mucus. *On admission.* — Tender swelling in l. iliac region. Nothing felt P.R.	Laparotomy reduction (*after injection*).	D	Colo-colic intussusception, easily reduced, after injection of water. Died a week later of general purulent peritonitis. Intestines natural save for discoloration about colon at site of intussusception. Some caseous mesenteric glands.	1905 V. 3348 ♂ (P.M. 202)

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Symptoms.	Treatment.	Result.	Remarks.	Reference.
46	1905 June	Mr. Bowlby	♀	10 days	4 days	B.N.O. for 4 days. Abdomen distended for 2 days. Moribund on admission. Legs blue and cold. No tumour felt.	...	D	P.M. — General purulent peritonitis. A large ileo-colic intussusception lying in position of transverse colon. Appendix drawn in, black and gangrenous, whole arterial system below the abdominal aorta contained thick clot, probably ante-mortem.	1905 III. 1382 ♀ (P.M. 101)
47	1905 Oct.	Mr. Bowlby	♀	5 m'ths	12 hours c.	Well in the morning. At mid-day passed blood, and vomited in the afternoon. *On admission.*—T. 97. Extremities cold. In pain, definite swelling over descending colon. Rectal examination followed by passage of pure blood. Nothing abnormal felt.	Laparotomy reduction.	R	Ileo-cæcal intussusception. Partly bottle-fed.	1905 III. 2120 ♀
48	1905 Dec.	Mr. D'Arcy Power	♀	5 m'ths	20 hours c.	Sudden onset. 7 P.M., cried with pain until 11 P.M. Then slept, vomited every hour after feeding. Since onset constipated, but 7 hours after onset	Laparotomy reduction. Appendicectomy.	R	Intussusception had increased at expense of the colon. Appendix reduced towards the end, congested, removed. Last part to be reduced was	1905 V. 2815 ♀

						passed blood and mucus. Dull, listless, and pale *on admission*, and apparently not in pain, swelling felt high up under costal margin on r. side. P.R. Nil abnormal felt, blood on examining finger.			a dimple in the cæcum. Breast-fed.	
49	1906 Jan.	Mr. Cripps	♂	10 m'ths	24 hours c.	Constipation for 24 hours, then tenesmus followed by passage of blood and mucus. Later vomited several times. *On admission.*—Legs drawn up on abdomen. Tumour felt on palpation, but not P.R.	Laparotomy reduction.	R	Entero-enteric intussusception about 3 inches long, easily reduced. Brother had intussusception 5 years ago. Operation and recovery.	1906 I. 118 ♂
50	1906 April	Mr. Cripps	♂	4 m'ths	24 hours c.	Sudden onset. Screaming, vomiting, blood and mucus per rectum.	Laparotomy reduction.	D	Death on fourth day after operation. Early general peritonitis. Appendix apparently gangrenous. Lower 2 inches of ileum, cæcum and 3 inches of ascending colon congested, but not gangrenous. Ileo-cæcal.	1906 I. 1230 ♂
51	1906 Aug.	Mr. Bailey	♂	5 m'ths	20 hours c.	Sudden onset. Screaming, vomiting, blood and mucus per rectum. *On admission.*—Collapsed. Hard tumour lying across abdomen above umbilicus. No resonance in r. iliac fossa.	Laparotomy reduction. Appendicectomy.	R	Lower end of ileum was invaginated through ileo-cæcal valve into cæcum, which with the appendix was passed on into colon. About 8 inches of gut involved. Appendix gangrenous; removed.	1906 III. 2356 ♂

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Treatment.	Treatment.	Result.	Remarks.	Reference.
52	1905 Oct.	Mr. D'Arcy Power	♂	25 years	8 days	Severe abdominal pain at intervals. First noted 8 days before admission. Relieved when bowels opened. Constipation 24 hours before admission. Abdomen rather rigid and tender. Nothing abnormal found. P.R. Enema gave very small dark result. Vomited once on day of admission. Pain in paroxysms lasting about $\frac{1}{4}$–$\frac{3}{4}$ minute. Resistance felt in l. iliac fossa, 24 hours after admission. Abdomen uniformly distended.	Laparotomy. End to end anastomosis with Murphy's button.	D	Entero-enteric intussusception found at operation. About 18 inches resected. P.M.—No cause for intussusception found. Patient had been in bed for 16 weeks with gonorrhœal arthritis at time of onset. No stricture or ulceration of urethra. Death due to shock.	1906 V. 3022 ♂
53	1906 Feb.	Mr. Bruce Clarke	♀	2 years	16 hours	Vomiting and drowsy. B.O. once after onset. Passed blood per rectum 12 hours after onset. Tumour felt near umbilicus on r. side.	Laparotomy reduction.	R	Was given a dose of castor oil the night before onset "for a cold." Ileo-cæcal intussusception.	1906 II. 266 ♀
54	1907 Oct.	Mr. Waring	♀	5 m'ths	9 hours	Sudden abdominal pain, vomiting. Constipation. Blood-stained fluid per rectum. Sausage-shaped tumour in splenic flexure. Nil P.R.	Laparotomy reduction.	R	Op. 1 hr. after admission. "Ileo-cæcal and ileo-colic." *Breast-fed only.*	I. 2876 ♂

55	1907 Nov.	Mr. Waring	♂	11 m'ths	? 12 hours	Screaming with pain, legs drawn up, a little vomiting, no blood per rectum. Oval swelling, axis vertical in r. iliac fossa.	Laparotomy reduction.	R	Diarrhœa a week before admission. Ileo-cæcal.	I. 3289 ♂
56	1907 Jan.	Mr. Bruce Clarke	♂	7 m'ths	24 hours c.	Sudden onset, frequent vomit, constipation, collapse. Swelling in l. inguinal region, tender on pressure.	Laparotomy reduction.	R	Ileo-colic and cæco-colic.	II. 177 ♂
57	1907 Mar.	Mr. Bruce Clarke	♂	8 m'ths	24 hours c.	Sudden onset, vomiting, blood and slime passed with semi-fluid motions. Incessant vomiting. Tumour in l. lumbar region.	Laparotomy reduction.	R	"In ileo-colic region," nine inches.	II. 907 ♂
58	1907 Oct.	Mr. Bruce Clarke	♂	7 m'ths	24 hours c.	Sudden onset, acute pain, vomited twice, passed blood and some slime per rectum, no flatus, abdomen rigid. "Tumour felt high up per rectum."	Laparotomy reduction.	R	18 inches of small intestine intussuscepted through ileo-cæcal valve.	II. 2921 ♂
59	1907 Jan.	Mr. Bailey	♂	4 m'ths	2½ hours	Cried and drew up its legs, two hours later passed blood and mucus per rectum. Collapsed, abdomen rigid. Tumour on left side of abdomen.	Laparotomy reduction. Appendicectomy.	R	Onset 11.30 A.M., ileo-cæcal. Condition of appendix not noted. At 3 P.M. intussusception felt per rectum. Operation 3½ hours after onset. "Breast-fed."	III. 225 ♂

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Symptoms.	Treatment.	Result.	Remarks.	Reference.
60	1907 Aug.	Mr. Bowlby	♂	5 m'ths	24 hours c.	Sudden onset, screaming, vomit. 6 hours after onset passed blood. Later B.O. twice, greenish stools with blood. Vomiting after food. Marked resistance in r. iliac fossa, blood-stained mucus per rectum.	Laparotomy reduction.	R	"Ileo-colic."	III. 2440 ♂
61	1907 Sept.	Mr. Gask	♂	6 m'ths	15 hours c.	Sudden onset. Screaming, vomiting, and blood passed per rectum. Large intussusception reaching as far as anus.	Laparotomy reduction.	R	Reduced with difficulty, several tears in peritoneum. Appendix congested. "Ileo-cæcal."	III. 2778 ♂
62	1907 Mar.	Mr. Gask	♂	5 m'ths	6 hours	Screaming, legs flexed on abdomen. Per rectum blood and mucus. Sausage-shaped tumour on left hypochondrium. Passed blood P.R.	Laparotomy reduction.	R	Has been in St. George's Hospital with "convulsions." Ileo-cæcal intussusception. Breast-fed.	IV. 805 ♂
63	1907	Mr. Lockwood	♂	Under one year	...	Full notes not available.	Laparotomy reduction.	R	.....	IV. 2644 ♂
64	1907 Mar.	Mr. D'Arcy Power	♂	8 m'ths	8½ hours	Sudden onset, screaming, legs drawn up. Short attacks every five minutes	Laparotomy, 11½ hours after on-	D	Apex of intussusception formed by ileo-cæcal valve.	V. 683 ♂ (P.M. 81)

						or so through the day. Blood and slime passed. *On admission.*—Child quiet, nothing felt per abd. or per rectum, blood on examining finger. Swelling in r. hypochondrium and emptiness in r. iliac fossa evident under anæsthetic.	set, reduction.		Entirely breast-fed. P.M. No intussusception present, no peritonitis, no adhesions, other organs healthy.	
65	1907 Sept.	Mr. Gask	♂	5 years	? 4 days	Sept. 8. Pain in abdomen, B.O. Sept. 9. Pain, vomited 4 times. Sept. 10, 11. Pain, vomited several times, constipated. *On admission.*—Abdomen not distended, moves well. Oval swelling in r. iliac fossa, rolls under finger. Enema, fluid result. Condition unchanged until Sept. 14th, but swelling shifted to above umbilicus.	Laparotomy, Sept. 14th, reduction.	R	Ileo-cæcal intussusception very easily reduced, gut natural colour.	V. 2686 ♂
66	1907 Nov.	Mr. Harrison Cripps	♀	6 m'ths	12 hours	Sudden onset, vomiting, diarrhœa, passage of blood and "slime." Child drowsy, swelling in region of transverse colon. Nil felt P.R.	Laparotomy reduction.	R	(No note as to character.)	I. 2696 ♀

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Symptoms.	Treatment.	Result.	Remarks.	Reference.
67	1907 May	Mr. Bowlby	♀	7 m'ths	24 hours c.	Well until 2 P.M. day before admission, then passed blood. P.R., and had a "drawn expression of the face." Legs drawn up, vomited, swelling in r. lumbar region. Cries when examined. Nothing felt P.R.	Laparotomy reduction. Appendicectomy.	R	Ileo-cæcal, 3 in. long, easily reduced. Appendix inflamed at tip and removed.	III. 1066 ♀
68	1907 Mar.	Mr. Gask	♀	2½ years	No note	"Sausage-shaped lump in the hypogastric region. Symptoms of intussusception."	Laparotomy reduction.	R	"Ileo-cæcal."	IV. 642 ♀
69	1907 Mar.	Mr. Gask	♀	10 m'ths	12 hours c.	Sudden onset, screaming, vomited, passed blood some hours after onset. Oval swelling in r. iliac fossa. Nothing felt per rectum.	Laparotomy reduction.	R	"Started at ileo-cæcal valve." Took the breast immediately after recovery from anæsthetic.	IV. 644 ♀
70	1908 Mar.	Mr. Harrison Cripps	♂	4 m'ths	4th day	Sudden onset, pain, vomiting, blood passed per rectum. Collapsed, abdomen rigid, swelling in l. iliac fossa, felt P.R.	Laparotomy resection. End to end anastomosis.	D	"Ileo-colic" intussusception advanced to rectum. Reduced to lower end of ascending colon. Last part irreducible. Commencing septic peritonitis. Part resected = lower part of ilium, cæcum, appendix, and lower part of ascending colon. No. P.M.	I. 766 ♂

71	1908	Mr. Harrison Cripps	♂	5 m'ths	48 hours c.	Sudden attack of abdominal pain and vomiting, with passage of blood and slime. P.R. Intus. felt high up. Per abd. swelling low in l. iliac fossa.	Laparotomy reduction.	R	"Ileo-colic." Entering layer consisted of ilium, cæcum, and part of colon. Œdema round ileo-cæcal valve.	I. 777 ♂
72	1908 July	Mr. Harrison Cripps	♂	6 m'ths	Ill for 48 hours, vomit for 24 hours	Vomiting, blood and mucus per rectum. Collapse. Resistance on r. side of abdomen. Nil P.R.	Laparotomy resection. End to end anastomosis.	D	"Ileo-cæcal." Small intestine sutured to cæcum. No peritonitis. Died 2 hours after operation.	I. 2181 ♂ (P.M. 136)
73	1908 Oct.	Mr. Waring	♂	6 m'ths	4 days c.	Unwell for 4 days. Passed blood per rectum last day. Vomited several times. Face drawn. Recti rigid. Swelling in r. iliac fossa. Rectum contains bright red blood.	Laparotomy reduction.		Ileo-ileo-colic. Patient survived six days. P.M. Small intestine was found ruptured almost transversely about 6 inches above ileo-cæcal valve. No remaining intussusception. No ulceration. Breast-fed.	I. 2915 ♂ (PM. 198)
74	1908 June	Mr. Eccles	♂	4 years	36 hours	Sudden onset, pain, swelling on r. side just below level of umbilicus.	Laparotomy reduction.	R	"Double intussusception, small intestine into itself and then into cæcum."	II. 1687 ♂
75	1908 Oct.	Mr. Bailey	♂	7 m'ths	? 5 hours	Sudden onset, vomiting, paroxyms of pain lasting about 1½ min. at intervals of about ¾ hours. B.O. No blood or mucus. No tumour felt, but on finger per rectum, blood. Slept between paroxyms.	Laparotomy reduction.	R	"Ileo-cæcal involving about 6 inches of bowel."	III. 2999 ♂

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Symptoms.	Treatment.	Result.	Remarks.	Reference.
76	1908 Jan.	Mr. Gask	♂	2½ years	?	Abdominal pain, vomiting, mucus per rectum. Swelling felt on l. side of abdomen and per rectum.	Laparotomy reduction.	R	"Indigestion for a fortnight before admission." "Transverse into descending colon."	IV. 98 ♂
77	1908	Mr. Bruce Clarke	♀	2 years	Ill for a week before admission	No note.	Laparotomy reduction.	R	"Ileo-colic."	II. 1468 ♀
78	1909 Feb.	Mr. Rawling	♂	30 years	six weeks?	Constipation for some months; pain on and off for 5 weeks. On admission a sausage-shaped swelling stretching across abdomen in line of transverse colon 2 inches in diameter freely movable. No blood in stools. B.O. freely with enemas, swelling grew less. Some days after admission acute colicky pain and vomiting, no plumbism, no signs of tabes. Blood found in fæces.	Exploratory. Laparotomy nil, abnormal found.	R	Pain did not recur. Case regarded as probably chronic intermittent intussusception.	1909 IV. 473 ♂
79	1909 May	Mr. Lockwood. transferred from Colston.	♂	39 years	5 m'ths	Attacks of pain and diarrhœa at intervals of a week or so. Then	Laparotomy attempt at reduction	R	Growth found in small intestine. Sections showed this to be a myxosarcoma,	1909 IV. 1162 ♂

		Dr. Herringham, April.				attack lasting 6 weeks. Lost 2½ stone weight. After admission to med. ward gained 10 pounds. Lump felt in r. iliac fossa, not tender, fixed. Abdomen somewhat distended. Sometimes partial intestinal obstruction.	of intussusception. of ileum ineffectual. Resection. Lateral anastomosis.		Enteric.	(Medical IV. 240)
80	1909 July	Mr. Gask	♂	9 m'ths	24 hours at least	Fretful for some days. 24 hours before admission passed blood. Stained mucus. Constipation, upper part of abdomen rigid. Lump felt under anæsthetic. "All signs of intussusception when admitted."	Laparotomy reduction.	R	"Intussusception of ileo-cæcal valve."	1909 IV. 1973 ♂
81	1909 June	Mr. Waring	♀	5 m'ths	Less than 20 hours	Vomiting, paroxysms of abdominal pain, blood passed per rectum. Onset sudden. *On admission.*—Child irritable, crying. Tumour felt under anæsthetic. Abdomen moves on respiration.	Laparotomy reduction. Appendicectomy.	D	Appendix found inflamed and removed. Subsequently bowels opened well. Died on fourth day after operation. P.M. — General peritonitis, no leakage from appendix-stump, no congestion of bowel, intussusception completely reduced. Intussusception extended from ileo-cæcal valve to sigmoid.	1909 I. 1487 ♀ (P.M. 120)

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Symptoms.	Treatment.	Result.	Remarks.	Reference.
82	1909 Oct.	Mr. Waring	♀	3½ years	48 hours	Vomiting and collapse. Tumour felt in umbilical region, abdomen distended, tumour disappeared after admission. Condition grew worse, and 12 hours after admission blood and a piece of intestinal mucosa were passed per rectum. No complaint of pain. 24 hours after admission tumour again felt.	Laparotomy reduction. End to end anastomosis.	D	Intussusception found. Reduced, but as gut was gangrenous 15 inches resected. P.M. No general peritonitis. Resected part lies in coil of ileum.	1909 I. 2295 ♀ (P.M. 187)
83	1909 June	Mr. Gask	♀	10 m'ths	15 hours c.	Sudden attack, screaming, mucus but no blood passed per rectum, formed stool passed, child refused the breast, looks ill and pale. On palpation of abdomen nothing found, but examination made the child scream. Large constipated stool with enema.	Laparotomy reduction.	R	"Small ileo-colic intussusception," apparently no vomiting.	1909 II. 1372 ♀

84	1909 Sept.	Mr. Bailey	♀	6 m'ths	20 hours c.	"Perfectly healthy" until morning of day of admission. Mother noticed blood and slime on napkin after an attack of vomiting. The child strained and cried, seemed drowsy. *On admission.*—A typical swelling in left iliac fossa. This could also be felt per rectum.	Laparotomy reduction.	R	"Ileo-colic." Child breast-fed. Note says ileo-colic colic. Reached to within 2 anus.	1909 III. 1973 ♀
85	1910 Jan.	Mr. Lockwood	♂	11 m'ths	12 hours c.	Sudden onset, pain, blood and mucus passed per rectum. *On admission.* — Tender, elongate swelling on right side of abdomen, passed much blood-stained mucus.	Laparotomy reduction.	R	Gut reduced itself as it was being drawn out of the wound. Exact nature of intussusception not noted.	1910 III. 294 ♂
86	1910	Mr. Etherington Smith	♂	9 m'ths	24 hours c.	Sudden onset. Pain, passed blood and mucus per rectum. *On admission.*—"Lump felt on right side of abdomen."	Laparotomy reduction.	R	Easily reduced, no note as to type. Suppression of urine for about 24 hours on the second day after operation.	1910 III. 1770 ♂
87	1910 July	Mr. Etherington Smith	♂	6 m'ths	?	Intermittent abdominal pain. Swelling in abdomen which varies its position. Blood and mucus on finger per rectum, but tumour not felt.	Laparotomy resection.	D	Ileum found to be intussuscepted with colon for about 3 inches. On attempting reduction gut was torn. Died six hours after operation.	1905 III. 2054 ♂

Case No.	Year and Month.	Surgeon.	Sex.	Age.	Duration of Symptoms on admission.	Signs and Symptoms.	Treatment.	Result.	Remarks.	Reference.
88	1910 Mar.	Mr. Waring transferred from Medical Ward by Dr. Tooth	♂	13 years	7 days	Sudden onset, violent pain in abdomen with vomiting. Pain about umbilicus. B.O. on day of onset, then constipation for 4 days. After this black stools, vomiting incessant, pain increasing. *On admission.*—B.O. with enema, considerable amount of blood came away. T. normal, P. 100. During acute attacks of pain a distended coil of intestine seen lying transversely at level of umbilicus. Nothing palpable.	Laparotomy resection. End to end anastomosis.	D	Enteric intussusception found. Died of general peritonitis. Line of anastomosis was found in ileum about 6 feet above ileo-cæcal valve.	V. 752 ♂ Medical Notes V. 67 ♂ (P.M. 48)
89	1910 May	Mr. Gask	♀	6 m'ths	24 hours	Constipated on day before admission. Given ol. ricini, which she vomited. On day of admission passed bright red blood per rectum and vomited several times. *On admission.* — Swelling felt below liver on r. side extending obliquely across the abdomen to left iliac fossa, marked emptiness in r. iliac fossa. Blood on diaper. Erythematous patches on body.	Laparotomy reduction.	R	Ileo-cæcal intussusception found. Child breast-fed.	III. 1202 ♀